Remarks

Claims 1-6 are pending in the application. Claims 1-6 are rejected. All rejections are respectfully traversed.

The specification has been amended to correct informalities.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Klemets et al., U.S. Patent No. 5,918,002 (Klemets).

In Klemets, a client computer (receiver) determines whether a packet has been lost or not depending on a measured round trip time, see column 2, lines 50, et seq. A round trip time is not a real-time feedback of network conditions.

Klemets does not describe a sender subsystem receiving *real-time feedback information on conditions of the network* while transmitting packets from the sender subsystem to a receiver subsystem. In Klemets, it is the client that performs the steps. Klemets does not describe what takes place at the sender (server) with respect to transmitting redundant packets, if any.

At best, Klemets sends a retransmission request packet to the server (sender subsystem) if the round trip time is less than the time remaining before the missing packet is no longer useful to the on-demand application.

There is not feedback of a network condition from a receiver to a sender in Klemets. In Klemets, the packet loss is computed at the receiver, see column 8. Klemets does not describe determining a probability of packet loss based on the real-time feedback in the sender subsystem from the receiver.

The steps described at column 6, lines 26, et seq., also take place at the client: "Playout buffer 366 also enables retransmitted (lost) packets to be inserted in their originally sequential order prior to processing by decoder 364."

Thus, Klemets does not perform any of the steps in claim 1. Klemets cannot anticipate what is claimed.

As for claim 2, the steps in Figure 10 are performed at the client and not at the sender as claimed. There is no round trip latency at column 9, lines 27, et seq.:

> Decrease_Bandwidth message was sent (step **526**), then step **430** is invoked (**420**y). Conversely, if the difference between the Current_Time and the time the last Decrease_Bandwidth message was sent is greater than the sum of the Ideal_Buffer_Size and the average Round_Trip_Time to stream server **220** (step **528**), then step **430** is invoked (**420**y).

Regarding claims 3 and 4, Klemets does not generating redundant packets for selected packets of the bit stream in the sender subsystem if the probability of packet loss is greater than a predetermined threshold. Therefore, Klemets cannot have selected packets which are header packets of an I-frame.

At column 12, Klemets states:

> The present invention may also be practiced with the prioritization of retransmission based on data types of the data packets. For example, since parent I frames are needed to render dependent child P frames, data packets which include I frame(s) should assigned higher priority for transmission and/or retransmission over data packets which include only P frame(s).

That is, Klemets describes retransmission based on data types, and the priority of I- and P-frame packets. There is nothing there about *redundant* packets generated by the sender subsystem based on network conditions.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klemets in view of Jang et al., U.S. Patent Application Publication No. 2004/0027991 (Jang).

With respect to claim 5, neither Klemets nor Jang generate redundant packets ahead of time. Instead, Jang just retransmits a packet that has been lost, see Figure 6. Jang does not generate a redundant packet, and then transmit that packet before the packet of which is transmitted. That is, what is claimed is a proactive redundancy, while Jang is an after the fact retransmission.

With respect to claim 6, Klemets does not generate redundant packets in a sender subsystem in response to feedback on network condition based on frame type, or anything else. Jang also does not show redundant packets, that are generated before the fact of packet loss. Jang only retransmits later after it is determined that a packet has been lost.

It is believed that this application is now in condition for allowance. A notice to this effect is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicant's attorney at the number listed below. Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 50-0749.

Respectfully submitted,
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